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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,416	07/03/2003	Derek Shaeffer	BBNT-P030	2090

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EXAMINER

SHINGLETON, MICHAEL B

ART UNIT PAPER NUMBER

2817

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/613,416	Applicant(s) SHAEFFER, DEREK	
	Examiner Michael B. Shingleton	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

Due to the indefinite nature of the claims a determination of the claims over the prior art cannot be made at this time. The examiner has searched the invention to the best of his abilities and has recited the results of this search below.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 17-25 are indefinite because it is unclear in light of the specification what is "prior to the input of the non-linear element of the first oscillator", what is "prior to the input of the non-linear element of the second oscillator", what is "prior to the input of the non-linear element of the second oscillator", what is "prior to the input of the non-linear element of the first oscillator". The first coupler receives a first signal from the oscillator after the output of the gain element is clear. The first coupler providing the first signal after the output of the gain element of the second oscillator is clear. If the claims mean that the first coupler is prior to the input of the non-linear element of the first oscillator", then in light of the specification it is unclear what this corresponds to. For example in Figure 3, which is the box diagram view of the specific circuits of the invention, this Figure shows the coupler 136 receiving a first signal "X" after the output of the gain element G(Z). However, this coupler 136 is not prior to the input of the non-linear element 138 of the first oscillator as required by the claims. It is after the input of the non-linear element 138. If the claim meant that the first received signal is prior to the input of the non-linear element of the first oscillator then this does not follow in Figure 3 either for the first signal "X" is after the input of the non-linear element 138. Even when you considered Figures like Figure 7 one cannot determine that is meant by the claims in light of the specification. Figure 7 is a detailed description of Figure 3. Here 154, 158 and the lines that connect these elements to the gain element of the oscillator and to other oscillators form a coupler. The transmission line is the non-linear element as shown in Figure 3

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as this is the only reasonable interpretation for such as the transistor 160 and the transistors connected directly thereto must form the gain element. Element 154 receives the first signal from the output of the gain element that includes transistor 160, but this coupler is after the non-linear element of the first oscillator (The right-hand transmission line structure.) and not prior to the non-linear element of the first oscillator. If the first signal is the element prior to the input of the non-linear element of the first oscillator then the first signal that is from the output of the gain element that includes transistor 160 is not prior to the non-linear element of the first oscillator as shown in Figure 7. Furthermore, this coupler does not provide the first signal after the output of the gain element of the second oscillator as required by the claims (Note the direction of the arrow right next to element 158.). The method claims correspond to the device claims and are indefinite for similar reasons for it cannot be determined what is being claimed in light of the specification. Also note that the dependent claims contain the indefiniteness of their base claims and accordingly are themselves indefinite.

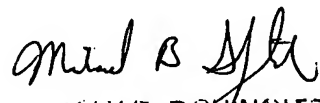
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Galani and Oberhammer both show the multiple oscillator structures but it appears that these references do not have the two couplers connected in the manner as claimed. Again it is not clear what structure in light of the specification is being claimed. Hirai and Kippenberg shows the general state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is 571-272-1770. The examiner can normally be reached on Monday-Thursday from 8:00 to 4:30. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal, can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

MBS  
March 30, 2004

  
MICHAEL B. SHINGLETON  
PRIMARY EXAMINER  
GROUPART/INT 2817